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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,374

02/23/2005

Kei Etou

7398/84282

5196

42798 7590 08/20/2009  
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EXAMINER

BURNEY, RACHEL L

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

08/20/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,374	<b>Applicant(s)</b> ETOU ET AL.	
	<b>Examiner</b> Rachel L. Burney	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/02/2009</u> .                                               | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 06/02/2009 was filed after the mailing date of the application on 02/23/2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5639582 (Imai) in view of US Patent 6858369 (Adachi).

Imai discloses a toner comprising a core, comprising a silicone-modified resin, and a shell (column 2, lines 4-7), wherein the silicone-modified resin has a softening point of 40-120°C (column 9, lines 28-33), and the shell may be a urea-formaldehyde resin, which is formed by interfacial polymerization over a dispersion of the core

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particles (column 10, lines 25-61). The toner may be formed by grinding (column 17, lines 30-43). Imai fails to teach the urea-formaldehyde shell on the ground toner. Adachi teaches that a toner may be formed by a grinding process and may further comprise a coated surface component (column 27, lines 7-18), wherein the coating is used to improve charge characteristics of the toner (column 3, lines 39-47). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the coating of Imai on the polymerized toners or the ground toners, as a coating may improve characteristics of ground toners, as taught by Adachi.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5639582 (Imai) in view of US Patent 6858369 (Adachi) as applied to claim 1 above, and further in view of US Patent 4973541 (Kohri).

Imai discloses the toner of claim 1 as discussed above, wherein the thickness of the shell is brought to a desirable size (column 15, lines 51-55), however Imai and Adachi fail to disclose what the desired thickness is. Kohri discloses a toner which comprises a core material and a shell material (column 3, lines 7-12), wherein the shell has a thickness of 0.01-0.8  $\mu\text{m}$  in order to provide the proper strength for fixing (column 9, lines 37-43). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a shell thickness of 0.01-0.8  $\mu\text{m}$  for the shell of Imai and Adachi in order to improve the fixing strength, as taught by Kohri.

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5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5639582 (Imai) in view of US Patent 6858369 (Adachi) as applied to claim 7 above, and further in view of US PGPub 2002/0055050 (Serizawa).

Imai and Adachi disclose a method of making the toner which involves a polymerization reaction, but fail to teach aggregation. Serizawa discloses a toner which is formed by aggregation, which includes polymerization and agitating the toner particles. It would have been obvious to one of ordinary skill in the art at the time of the invention to use aggregating by polymerization and agitating, as taught by Serizawa, in the polymerizing and agitating step of Anno, and one would have a reasonable expectation of success in doing so.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5639582 (Imai) in view of US Patent 6858369 (Adachi) as applied to claim 1 above, and further in view of US Patent 6171743 (Nakamura).

Imai discloses the toner of claim 1 as discussed above, wherein the toner has an average particle diameter of 7  $\mu\text{m}$  (column 17, lines 41-43), but Imai and Adachi fail to teach the true sphericity of the toner. Nakamura discloses that when the average particle size is between 1 and 10  $\mu\text{m}$ , then the shape coefficient should be 103 to 130 in order to maintain stable chargeability and good imaging properties (column 3, lines 37-53), wherein the shape coefficient is defined in such a way where the closer the value is to 100, the closer the toner particle is to true sphericity (column 3, lines 8-22). The toner of Nakamura may be formed by grinding (column 7, lines 7-10). It would have

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been obvious to one of ordinary skill in the art at the time of the invention to use a shape coefficient of 103 to 130 in the toner particles of Imai and Adachi, resulting is particles which have close to true sphericity, in order to maintain stable chargeability and improve imaging properties, as taught by Nakamura.

### ***Response to Arguments***

7. Applicant's arguments, see pages 4-5, filed 04/27/2009, with respect to the rejection(s) of claim(s) 1, 2, and 6 under Suematsu have been fully considered and are persuasive in view of the amendments to the claims. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Imai and Adachi as discussed above.

8. In view of applicant's arguments, filed 12/23/2008, with respect to the rejection(s) of claim(s) 1, 2, and 7, Applicant argues that one of ordinary skill in the art would have no basis to predict if it would be possible to coat a ground toner. The examiner asserts that in view of teachings of Adachi, as discussed above, one of ordinary skill would find it obvious to use a coating on a ground toner as well as a polymerized toner, and would therefore be led to use the coating of Imai on the ground toners of Imai as well as the polymerized toners.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel L. Burney whose telephone number is (571)272-9802. The examiner can normally be reached on Mon-Thurs: 7:30-6:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark F. Huff/

Supervisory Patent Examiner, Art Unit 1795

RLB